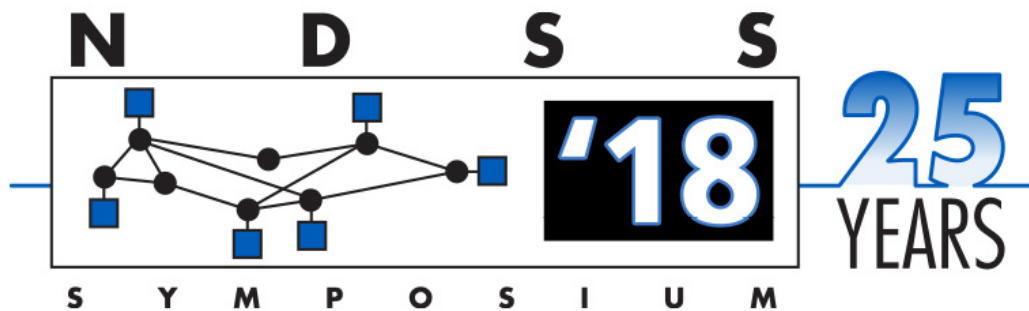


Proceedings

2018

Network and Distributed System Security Symposium



Proceedings

2018

**Network and Distributed
System Security Symposium**

February 18 – 21, 2018

San Diego, California

Hosted by the
Internet Society





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General Chair's Message

It is my pleasure to welcome you to the 25th Annual Network and Distributed System Security Symposium.

We celebrate the 25th anniversary of NDSS with a richer program than ever before: four workshops, more technical papers than in past years, exciting keynotes, and a poster session.

This year we have four co-located workshops: Workshop on Binary Analysis Research (BAR), Workshop on Decentralized IoT Security and Standards (DISS), Workshop on DNS Privacy (DNSPRIV), and Workshop on Usable Security (USEC). The workshops encompass critical topics in network and distributed systems security, some long established as important research areas (as represented by BAR, DNSPRIV, and USEC) and others that recently emerged (as represented by DISS). I'd like to thank Matthew Smith and Mathias Payer, the Workshops Co-Chairs, and Karen O'Donoghue, Steering Group Co-Chair, for bringing together such an exciting set of workshops.

Building on recent success, this year we're continuing the tradition of organizing a poster session to showcase both in-progress and exciting recent work in various aspects of computer security. Thanks are due to Adam Aviv and Ting-Fang Yen, the Poster Co-Chairs, for making sure we have an excellent poster program.

Due to increased interest in our field and in NDSS, more papers will be presented at NDSS this year than in any past year, yielding a particularly exciting program. Selecting the papers is a task that involves many people and many hours of hard work. I'd like to thank Program Committee Co-Chairs Patrick Traynor and Alina Oprea for the tremendous amount of work they donated and the excellent job they've done in putting together this year's program.

Many individuals have contributed to making NDSS a success, including everyone on the Steering Group, Organizing Committee, and the Internet Society and Association Management Solutions staff. I'd like thank all of them for contributing their time and effort.

NDSS is possible in large part thanks to our generous sponsors. I'd like to thank Baidu, Cisco, Check Point Software Technologies, the Internet Society, and Qualcomm for their support, and the Internet Society additionally for hosting the symposium. Funds for our student grants were provided by the National Science Foundation and the Internet Society.

Finally, thank you, all, for participating in the symposium and through that adding the key ingredient that makes NDSS a success. I wish you all an excellent 25th NDSS!

Lujo Bauer
General Chair, NDSS'18

Program Co-Chairs' Message

It is our great pleasure to welcome you to the 25th Annual Network & Distributed System Security Symposium (NDSS 2018), held at the Catamaran Resort Hotel and Spa in San Diego, CA, United States from February 18-21, 2018. Twenty-five years represents a major milestone for any conference, and we are proud that NDSS continues to help lead the discussion on innovative techniques to secure the world's most important systems. Our goal continues to be impact, especially in the form of practical and relevant solutions. It is our hope that the papers included in this program are the starting point of the crucial conversations necessary to enable the Internet community to apply, deploy, and advance the state of network and distributed systems security technologies.

This year NDSS received 331 complete submissions (i.e., not counting papers that clearly violated the submission guidelines). Submissions were evaluated on the basis of their technical quality, novelty, and significance. Multiple rounds of reviewing culminated in a one-day in-person program committee meeting in Miami, at which 71 papers (approximately 21%) were selected to appear in the program. We note that this represents the largest program ever presented at the conference, and have intentionally expanded the program to better accommodate our burgeoning community. We strongly encourage the program committees for related venues to do the same.

Organizing a conference as large as NDSS is a substantial endeavor, and we would like to extend our sincere thanks to everyone who contributed her or his time and effort. We'd also like to specifically thank a few individuals who made particular contributions to NDSS 2018. Karen O'Donoghue served as a valuable interface between the Program Committee Chairs, the Organizing Committee and ISOC. We continued our single day PC meeting experiment this year with great success. Selcuk Uluagac and his students (Hidayet Aksu, Leonardo Babun, Abbas Acar and Amit Sikder) hosted the PC meeting at Florida International University in Miami, and were largely responsible for one of the best run meetings we have ever attended. We would also like to thank Joseph Choi and Luis Vargas (UF) for their assistance on the ground during the PC meeting, and Yan Ji (Cornell Tech) for creating a scheduling tool for the meeting.

Also crucial to our success was the creation of a Reviewing Task Force, whose job was to ensure that reviews were as constructive and fair as possible. PC members strove to serve as mentors instead of gatekeepers, not only attempting to select the best possible program for our diverse community, but also to assist authors of the rejected papers in improving their work. We believe that this philosophical change is important to improving open and equitable dialog in the community.

Finally, thanks to David Balenson, the Publications Chair, for his efforts and persistence in producing these proceedings. We would also like to thank everyone who served on the program committee and put in the time both to review papers and travel to the PC meeting. It was our pleasure and honor to have worked with you to put together the program for NDSS 2018. Also crucial to the success of NDSS are the authors who submitted papers and the attendees, without whom NDSS would not be possible. Welcome to NDSS 2018!

Patrick Traynor and Alina Oprea
Program Co-Chairs, NDSS'18

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